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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,516	02/05/2004	Trent A. Shidaker	WUR 50907/US/2	5676
7590 Patent Counsel Huntsman Polyurethanes 10003 Woodloch Forest Drive The Woodlands, TX 77380			EXAMINER COONEY, JOHN M	
			ART UNIT 1711	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/04/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/772,516

Applicant(s)

SHIDAKER ET AL.

Examiner

John m. Cooney

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Applicant's arguments filed 10-23-06 have been fully considered but they are not persuasive.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-16 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bodnar et al.(5,143,945).

Bodnar et al. discloses reaction systems useful in molded foam applications prepared from aromatic isocyanate materials, polyols of weights and functionalities inclusive of those claimed and being derived from the isocyanate reactant compounds defined by the claims, water and carboxylic acids as blowing agents, and other additives, auxiliaries, and reactants(see column 3 lines 14-37 & 60 et seq., column 4 lines 1-28 & 66 et seq., column 5 lines 39-45 & 66 et seq., column 6 lines 1-4 & 43-49, and the entire document).

Bodnar et al. differs from applicants' claims in that it is not particularly limited to applicants' recited selections of active hydrogen containing derived polyols of the equivalent weights as claimed. However, Bodnar et al. is clear in the particular suitability of the members, ammonia, ethylene diamine, trimethylol propane, and ethylene glycol, in forming the polyols of their invention, and the suitability of the

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molecular weights and functionalities necessary to meet applicants' claimed hydroxyl equivalent values in forming the polyols of their invention. Accordingly, it would have been obvious for one having ordinary skill in the art to have employed the suitably employable active hydrogen containing materials disclosed by Bodnar et al. within the preparations of Bodnar et al's own teaching for the purpose of providing their isocyanate reactive urethane forming effect in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results. Motivation to operate within the teachings of Bodnar et al. for the purposes of imparting their result intended effect is held to be properly established. It has long been held that where the general conditions of the claims are disclosed in the prior art, discovering the optimal or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233; *In re Reese* 129 USPQ 402 . Further, a prima facie case of obviousness has been held to exist where the proportions of a reference are close enough to those of the claims to lead to an expectation of similar properties. *Titanium Metals v Banner* 227 USPQ 773. **(see also MPEP 2144.05 I)** Similarly, it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Bodnar et al. further differs from applicants' claims in that it does not require the Index values of applicants' claims. However, Bodnar et al. (see column 8 lines 11-31) does indicate controls for operation of their invention in overlap with the ranges of values of applicants' claims. Bodnar et al. initially set forth requirement is that "isocyanate component must be employed in excess" (i.e. Index values of greater than

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1). Accordingly, it would have been obvious for one having ordinary skill in the art to have operated within the fully disclosed mixing ratios provided for by the teachings of Bodnar et al. in order to arrive at the mixing ratios provided for by applicants' claims as motivated by the desire to control isocyanurate linkage contents in the preparations formed in Bodnar et al. in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results. Further, even if Bodnar et al. is seen to be limited by the disclosure of column 8 lines 28-31 examiner holds that a prima facie case of obviousness has been held to exist where the proportions of a reference are close enough to those of the claims to lead to an expectation of similar properties. *Titanium Metals v Banner* 227 USPQ 773. (see also MPEP 2144.05 I).

Applicant's arguments with respect to claims 1-16 and 19-20 have been considered but are moot in view of the new ground(s) of rejection.

The following previous arguments are maintained as restated below:

The claims are not limited by the recited transitional language "consisting of" because the claims are open by the introductory transitional language "A reaction system comprising". Further, the language "consisting of" only relates to and limits the "isocyanate-reactive foaming agent" to exclusion of additional "isocyanate-reactive foaming agents". Physical blowing agents such as the halocarbons of Bodnar et al. are not excluded by this claim language. None of the claims recite the foaming agents of

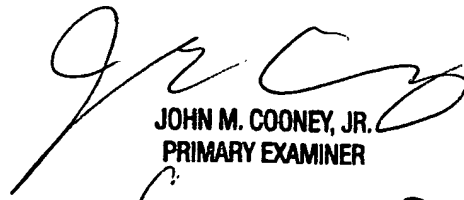
the systems to be "foaming agents consisting solely of water, carboxylic acid, or mixtures thereof" so as to exclude any and all other foaming/blowing agents.

Further, even if exclusion of other blowing agents were made evident in the claims, then rejection would not be overcome. All disclosures of the prior art, including unpreferred or auxiliary embodiments must be considered in determining obviousness. *In re Mills*, 176 USPQ; *In re Lamberti*, 192 USPQ 278; *In re Boe*, 148 USPQ 507, and it has been held that omission of an element with consequent loss of function is obvious. *In re Kuehl* 177 USPQ 250; *In re Wilson* 153 USPQ 740. Also, it has been held that omission of an element and its function in a combination where the remaining elements perform the same function as before involves only routine skill in the art. *In re Karlson*, 136 USPQ 184.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
JOHN M. COONEY, JR.  
PRIMARY EXAMINER  
Group 100